ABSTRACT

In accordance with the invention, the optical power level in an optical waveguide is monitored by enclosing a length of the waveguide within an insulated cavity of comparable length and cross section, measuring a first temperature T_1 within the cavity, measuring a second temperature T_2 outside the cavity and deriving from the difference, $T_1 - T_2$, a measure of the optical power level. Exemplary apparatus for monitoring the optical power level in an optical waveguide comprises a substrate with an insulated groove for receiving an optical fiber, an insulated lid for sealing the fiber within the groove, and internal and external temperature sensors.